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(71) Applicant

(56) Documents cited  
US 4624460 A US 4438931 AJames Parkhill Scott  
4 Lochlibo Terrace, Barrhead, Glasgow, G78 1LJ,  
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(72) Inventor

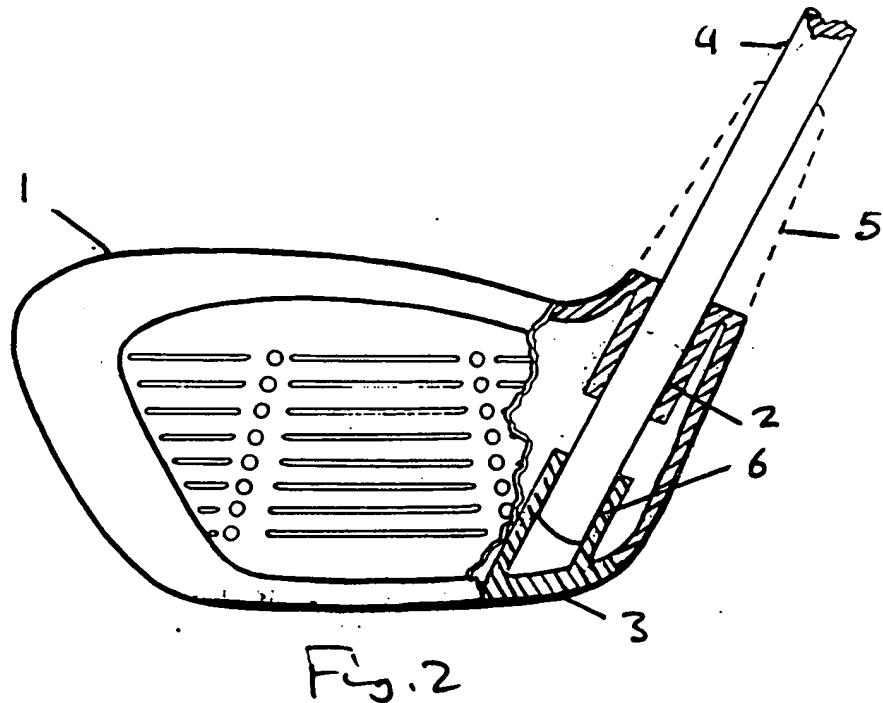
James Parkhill Scott

(74) Agent and/or Address for Service

Fitzpatrick  
4 West Regent Street, Glasgow, G2 1RS,  
United Kingdom

## (54) Improvements in golf clubs

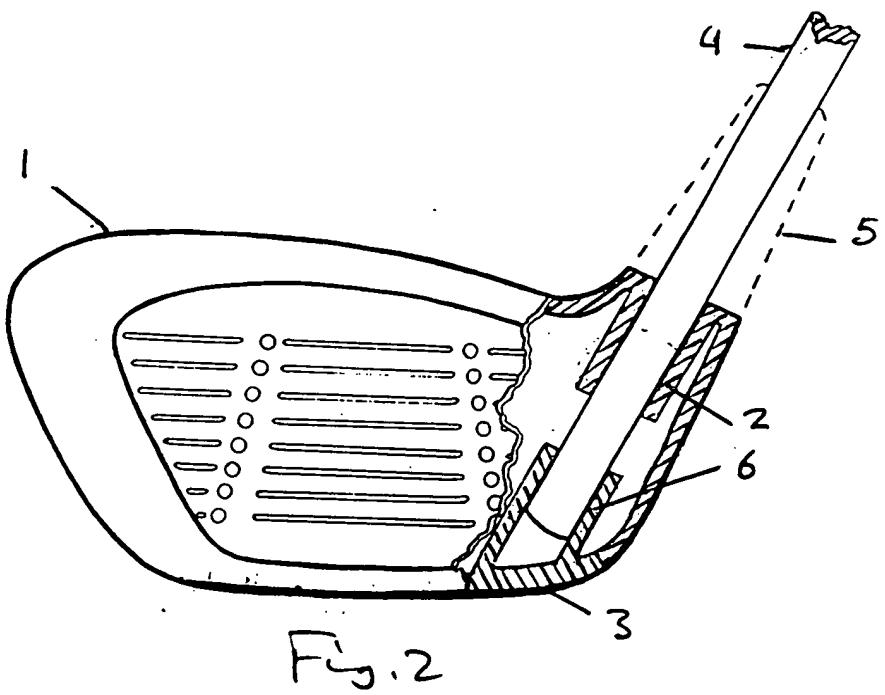
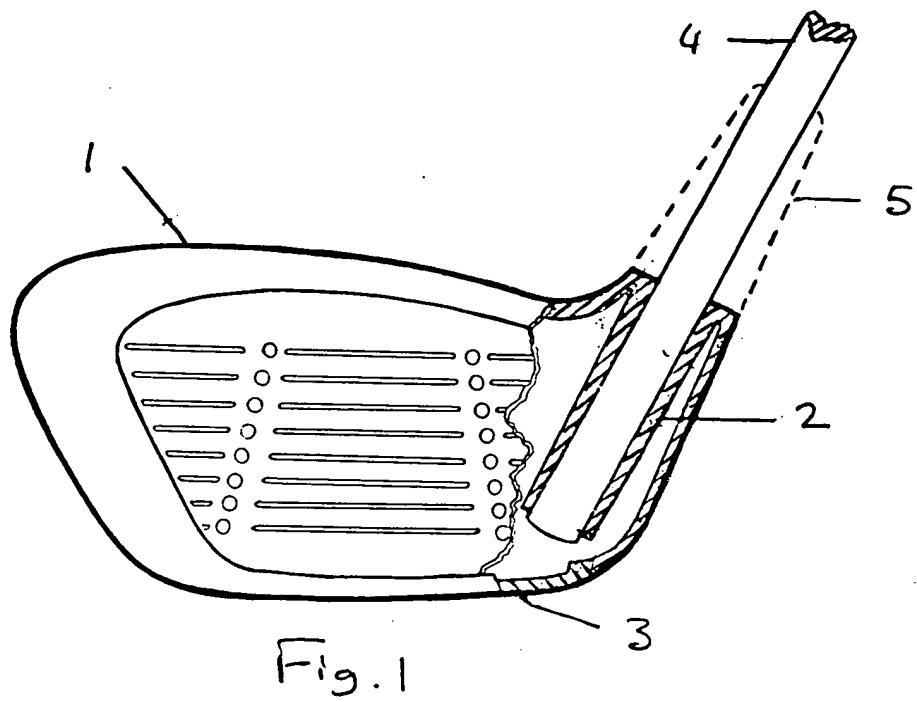
(57) A hollow cast metal head (1) for a metal wood golf club has the hosel or socket for receiving the shaft (4) of the club, provided within a neck (2) projecting into the interior of the head proper. This places the centre of gravity of the club closer to the sole plate (3) and increases the hitting distance attainable with the club. A second neck (6) may be provided on the sole plate of the club to receive the end of the shaft (4).



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IMPROVEMENTS IN GOLF CLUBS

DESCRIPTION

This invention relates to improvements in golf clubs and particularly in metal woods.

At present, metal woods have their hollow metal heads cast with the hosel or socket for the shaft, provided wholly within an elongate neck projecting outwardly from the head proper.

The metal of the elongate neck possesses weight which tends to space the centre of gravity of the club away from the sole thereof with a consequent limitation on the hitting distance attainable with the club.

An object of the invention is to move the centre of gravity of the club closer to the sole thereof and thereby increase the hitting distance attainable with the club.

According to the invention there is provided a hollow cast metal head for a metal wood golf club, wherein the hosel or socket for receiving the shaft of the club, is provided within a neck projecting into the interior of the head proper.

Embodiments of the invention will now be described, by way of example, with reference to the accompanying drawing, in which:-

Fig. 1 shows the head end of a metal wood golf club having a hosel provided within a long internal neck; and

Fig. 2 shows the head end of metal wood golf club having two mutually aligned internal hosels, one formed in the head proper and the other on the sole plate.

Referring to Fig. 1, the hollow head proper is shown at 1 with a long integral neck 2 projecting into the interior of the head 1. A sole plate 3 is welded into an opening at the bottom of the head 1. A shaft 4 is shown received within the hosel formed in the neck 2. A plastics ferrule is shown at 5 for appearance sake.

In Fig. 2 a shorter internal neck 2 is shown integral with the head 1. Aligned with the neck 2 is an additional neck 6 integral with the sole plate 3 and the shaft 4 is received within the hosels in both necks 2 and 6.

In a conventional head of a metal wood golf club the neck within which is the hosel for the shaft occupies substantially the space occupied by the ferrule 5 and, of course, is made of metal. By providing the neck internally of the head the centre of gravity of the club is placed nearer the sole plate.

This increases the hitting distance attainable with the club. The swinging weight of a club is obtained by balancing the club at a point on the shaft spaced about 10 inches or 25cm from the heel of the club and moving a weight along the grip end of the shaft. By moving the centre of gravity of the club nearer the sole plate the same swinging weight is achieved with less metal in the head. This creates a saving in material.

CLAIMS

1. A hollow cast metal head for a metal wood golf club, wherein the hosel or socket for receiving the shaft of the club, is provided within a neck projecting into the interior of the head proper.
2. A head according to claim 1, wherein the said neck terminates close to a sole plate.
3. A head according to claim 1, wherein the said neck terminates short of a sole plate, and the sole plate has a second internal neck aligned with the first mentioned neck and providing a second hosel for receiving the shaft.
4. A hollow cast metal head for a metal wood golf club, substantially as herein before described with reference to Fig. 1 of the accompanying drawing.
5. A hollow cast metal head for a metal wood golf club, substantially as hereinbefore described with reference to Fig. 2 of the accompanying drawing.
6. A metal wood golf club comprising, in combination, the head according to any preceding claim, and a shaft received within the hosel(s).

FIG. 6. PRIOR ART

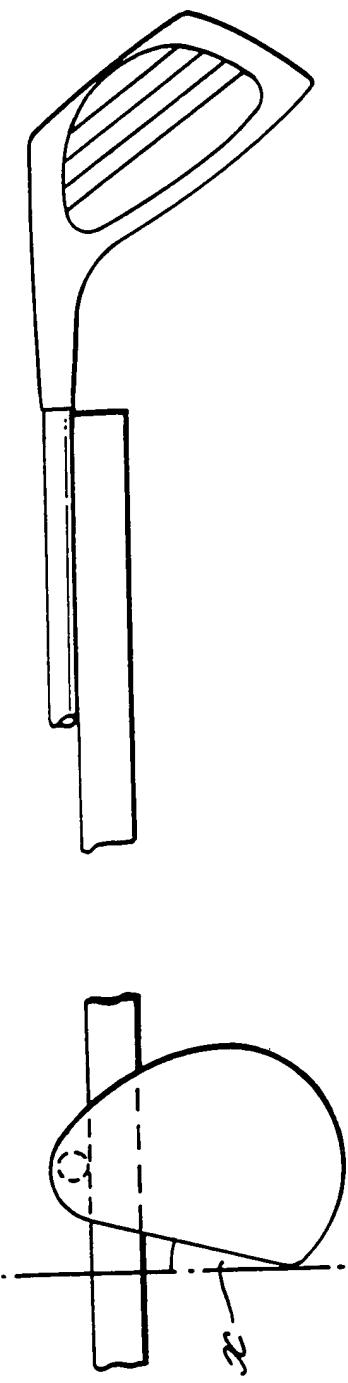
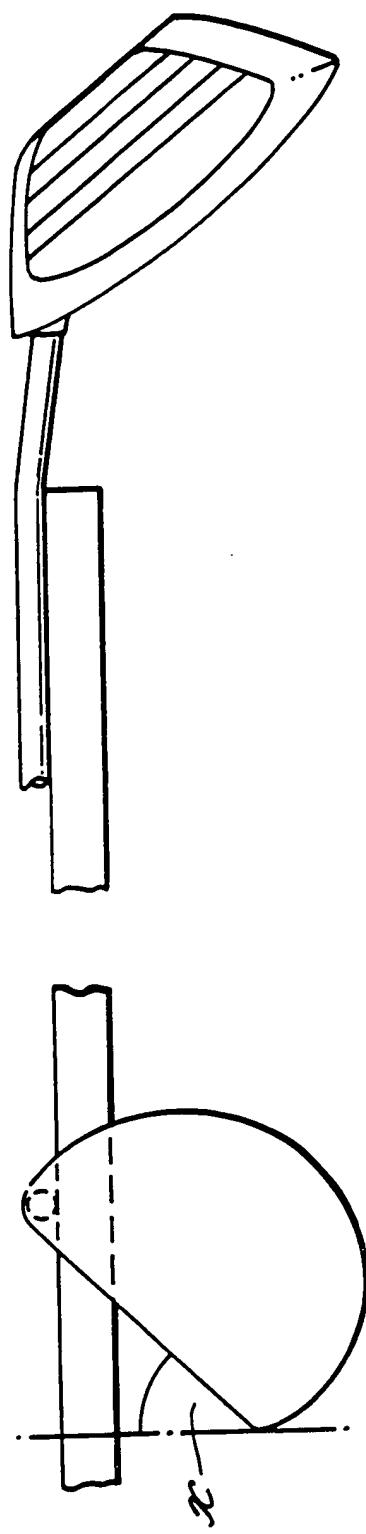


FIG. 7



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